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YOU HAVE REQUESTED DATA FROM 4 ANSWERS - CONTINUE? Y/(N):y

L7 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:116590 CAPLUS

DOCUMENT NUMBER: 140:309328

TITLE: Crosslinking structures of gelatin hydrogels crosslinked with genipin or a water-soluble carbodiimide

AUTHOR(S): Liang, Huang-Chien; Chang, Wen-Hisung; Liang, Hsiang-Fa; Lee, Meng-Horng; Sung, Hsing-Wen

CORPORATE SOURCE: Department of Chemical Engineering, National Tsing Hua University, Hsinchu, 30013, Taiwan

SOURCE: Journal of Applied Polymer Science (2004), 91(6), 4017-4026

CODEN: JAPNAB; ISSN: 0021-8995

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB It was suggested in our previous studies that carbodiimide- and genipin-crosslinked **gelatin** hydrogels could be used as bioadhesives to overcome the cytotoxicity problem associated with formaldehyde-crosslinked **gelatin** hydrogels. In this study, we investigated the crosslinking structures of carbodiimide- and genipin-crosslinked **gelatin** hydrogels. We found that crosslinking **gelatin** hydrogels with carbodiimide or genipin could produce distinct crosslinking structures because of the differences in their crosslinking types. Carbodiimide could form intramol. crosslinks within a **gelatin** mol. or short-range intermol. crosslinks between two adjacent **gelatin** mols. On the basis of gel permeation chromatog., we found that the polymerization of genipin mols. could occur under the conditions used in crosslinking **gelatin** hydrogels via a possible aldol condensation. Therefore, besides intramol. and short-range intermol. crosslinks, addnl. long-range intermol. crosslinks could be introduced into genipin-crosslinked **gelatin** hydrogels. Crosslinking a **gelatin** hydrogel with carbodiimide was more rapid than crosslinking with genipin. Therefore, the gelation time for the carbodiimide-crosslinked **gelatin** hydrogels was significantly shorter than that of the genipin-crosslinked **gelatin** hydrogels. However, the cohesive (interconnected) structure of the carbodiimide-crosslinked **gelatin** hydrogels was readily broken because, unlike the genipin-crosslinked **gelatin** hydrogels, there were simply intramol. and short-range intermol. crosslinks present in the carbodiimide-crosslinked hydrogel. In the cytotoxicity study, the carbodiimide-crosslinked **gelatin** hydrogels were dissolved into small **fragments** in the cultural medium within 10 min. In contrast, the genipin-crosslinked **gelatin** hydrogels remained intact in the medium throughout the entire course of the study. Again, this may be attributed to the differences in their crosslinking structures. The genipin-crosslinked **gelatin** hydrogels were less cytotoxic than the carbodiimide-crosslinked **gelatin** hydrogels.

L7 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:507370 CAPLUS

DOCUMENT NUMBER: 129:202126

TITLE: Growth and viability of mycelial fragments of white-rot fungi on some hydrogels

AUTHOR(S): Lestan, D.; Lestan, M.; Lamar, R. T.

CORPORATE SOURCE: Forest Products Laboratory, Institute for Microbial and Biochemical Technology, USDA Forest Service, WI, 53705-2398, USA

SOURCE: Journal of Industrial Microbiology & Biotechnology (1998), 20(3/4), 244-250

CODEN: JIMBFL; ISSN: 1367-5435

PUBLISHER: Stockton Press

DOCUMENT TYPE: Journal

LANGUAGE: English  
 REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
 AB The viability of mycelial fragments of *Trametes versicolor* and *Irpex lacteus* and their growth on selected hydrogels are described. The size of mycelial fragments of the fungi did not significantly influence their viability. Alginate hydrogel films supported fungal growth better than agarose, carrageenan, chitosan and gelatin films, and had the highest mech. strength but were less hydrophilic than the other hydrogels. All com. alginates that were tested supported aseptic growth of fungal fragments without prior sterilization of the hydrogel solution. The viability of mycelial fragments in the hydrogel solns. was higher for some com. alginates than that in laboratory grade alginate. The mech. strength and hydrophilicity of hydrogels from alginate type Sobalg FD 155 and Meer HV were comparable to that of laboratory grade alginate. Sterilization and pH of the alginate hydrogel did not significantly influence the growth of *T. versicolor* mycelial fragments but affected the growth of *I. lacteus*. Concns. of alginate in the range of 1-2% in the hydrogel did not affect the growth of entrapped mycelial fragments of these fungi.

L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1998:163488 CAPLUS  
 DOCUMENT NUMBER: 128:208937  
 TITLE: Fragmented polymeric hydrogels for adhesion prevention and their preparation  
 INVENTOR(S): Wallace, Donald G.; Reich, Cary J.; Shargill, Narinder S.; Vega, Felix; Osawa, A. Edward  
 PATENT ASSIGNEE(S): Fusion Medical Technologies, Inc., USA  
 SOURCE: PCT Int. Appl., 54 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9808550	A1	19980305	WO 1997-US15262	19970814
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2264647	AA	19980305	CA 1997-2264647	19970814
AU 9742412	A1	19980319	AU 1997-42412	19970814
AU 719534	B2	20000511		
EP 927053	A1	19990707	EP 1997-940692	19970814
EP 927053	B1	20030402		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, IE				
BR 9711241	A	19990817	BR 1997-11241	19970814
JP 2002515086	T2	20020521	JP 1998-511970	19970814
RU 2207882	C2	20030710	RU 1999-106523	19970814
IL 128496	A1	20040620	IL 1997-128496	19970814
PRIORITY APPLN. INFO.:			US 1996-704852	A 19960827
			US 1997-903674	A 19970731
			WO 1997-US15262	W 19970814

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT Acrylic polymers, biological studies  
 Albumins, biological studies  
 Biopolymers  
 Caseins, biological studies  
 Collagens, biological studies  
 Elastins

Fibrinogens

Fibrins

Fibronectins

Gelatins, biological studies

Glycosaminoglycans, biological studies

Hemoglobins

Keratins

Laminins

Polyesters, biological studies

Polymers, biological studies

Polyoxyalkylenes, biological studies

Polysaccharides, biological studies

Proteins, general, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(fragmented polymeric hydrogels for adhesion prevention)

L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:284 CAPLUS

DOCUMENT NUMBER: 126:37149

TITLE: Injectable hyaluronic acid-containing dual-phase compositions, particularly useful in corrective and plastic surgery

INVENTOR(S): Debacker, Yves; Villain, Franck; Jallet, Valerie

PATENT ASSIGNEE(S): W.K. Et Associes, Fr.; Debacker, Yves; Villain, Franck; Jallet, Valerie

SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9633751	A1	19961031	WO 1996-FR636	19960425
W: AU, BR, CA, JP, US RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2733426	A1	19961031	FR 1995-5181	19950425
FR 2733426	B1	19970718		
FR 2733427	A1	19961031	FR 1996-5224	19960425
FR 2733427	B1	20010525		
AU 9657667	A1	19961118	AU 1996-57667 FR 1995-5181	19960425 A 19950425
PRIORITY APPLN. INFO.:			WO 1996-FR636	W 19960425

AB Dual-phase compns. containing a polymer selected from hyaluronic acid and its salts, methods for preparing the compns., and a filler material useful in corrective and plastic surgery are described. The compns. comprise an injectable suspension with a dispersed phase composed of insol.

fragments of a hydrogel of the strongly crosslinked polymer and a continuous phase composed of an aqueous solution of the polymer and/or another biocompatible polymer, selected from proteins, polysaccharides and derivs. which are noncrosslinked or weakly crosslinked. A biphasic composition was prepared from sodium hyaluronate (mol. weight 2 x 106) fibers of bacterial origin and dissolved in 0.25M NaOH solution 1,4-Bis(2,3-epoxypropoxy)butane, a crosslinker, was added to the above solution. The mixture was homogenized and heated at 50° for 2 h to give a solid hydrogel. The hydrogel was purified to give solid fragments with an average particle size of 75-250 µm.

ACCESSION NUMBER: 1983:559449 CAPLUS

DOCUMENT NUMBER: 99:159449

TITLE: Water-soluble acrylic polymer powder

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58061105	A2	19830412	JP 1981-160607	19811007
			JP 1981-160607	19811007

PRIORITY APPLN. INFO.:

AB Water-soluble polymer powder is prepared by polymerizing water-soluble acrylic compds. in H<sub>2</sub>O, pulverizing the polymer **hydrogel**, and drying in the presence of thiosalicylic acid (I) [147-93-3], thiomalic acid (II) [70-49-5], or water-soluble salts of I or II. Thus, a 40% solids 9:1 acrylamide-Na acrylate copolymer (III) [25085-02-3] **hydrogel** (intrinsic viscosity at 30° in 1 N NaNO<sub>3</sub> 23.3) was cut to 3-7 mm diameter **particles**, treated with a 20% aqueous Na<sub>2</sub>SO<sub>3</sub> (stabilizer, 5% on III) solution and a 20% aqueous Na thiosalicylate (IV) [134-23-6] (2% on III) solution, and dried 90 min at 100° to give 2-5 mm-diameter III pellets having excellent solubility in H<sub>2</sub>O and intrinsic viscosity 23.1. When IV was omitted, similarly dried III contained large **amts.** of **water-insol.** gel.

ACCESSION NUMBER: 1987:412818 CAPLUS

DOCUMENT NUMBER: 107:12818

TITLE: Calcium-induced gelation of alginic acid and  
pH-sensitive reswelling of dried gelsAUTHOR(S): Yotsuyanagi, Toshihisa; Ohkubo, Tsuneo; Ohhashi,  
Takafumi; Ikeda, KenCORPORATE SOURCE: Fac. Pharm. Sci., Nagoya City Univ., Nagoya, 467,  
JapanSOURCE: Chemical & Pharmaceutical Bulletin (1987), 35(4),  
1555-63

DOCUMENT TYPE: CODEN: CPBTAL; ISSN: 0009-2363

LANGUAGE: English

AB Ca-induced Na alginate gelation was examined in terms of water content changes. The gelation was accompanied with considerable water loss, which reached about 50-60% (weight/weight) reduction in the fully-cured state. The Ca association with the polymer was strong enough to maintain the shape of fully-cured beads in distilled **water** and the **amt.** of the ions associated with the alginate used was  $1.6 + 10^{-3}$  mol/g of polymer. The diffusion coeffs. of several model compds. having mol. wts. ranging from 122 to 1050 were estimated as a function of the polymer concentration in the fully-cured beads. The swelling property of dried gel **particles** prepared from fully-cured **hydrogels** was of interest; the **particles** remained unchanged in distilled water or acidic medium (pH 1.5 KCl-HCl) but swelled rather rapidly in pH 7.0 phosphate buffer to a size greater than their original size before being dried. Such a pH-sensitive swelling property could be advantageous for orally-administered drug vehicles, especially when an acid-sensitive drug is incorporated in the gel.

L10 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2004:517238 CAPLUS  
DOCUMENT NUMBER: 141:332540  
TITLE: Particle-forming precipitation polymerization under unusual conditions  
AUTHOR(S): Takahashi, T.; Fukazawa, H.; Kawaguchi, H.  
CORPORATE SOURCE: Faculty of Science and Technology, Keio University,  
Yokohama, 223-8522, Japan  
SOURCE: Progress in Colloid & Polymer Science (2004), 124,  
164-167  
CODEN: PCPSD7; ISSN: 0340-255X  
PUBLISHER: Springer  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
AB Precipitation polymerization of N-isopropylacrylamide (NIPAM) with a small amt. of crosslinker in **water** gave monodisperse thermosensitive **hydrogel particles** at 70 °C but not at 50 °C. Monodisperse **hydrogel particles** could be obtained even at 50 °C when co-nonsolvent systems such as ethanol/water were used as the polymerization medium. Polymerization in ethanol/water mixture gave poly-NIPAM **particles** even at room temperature. In this type of polymerization, stirring was unnecessary for the formation of **particles**. **Particles** prepared in ethanol/water were highly swellable. This was due to frequent chain transfer reaction in which ethanol takes part, resulting in low-mol.-weight polymers and low crosslinking efficiency. DMSO/water mixture is also suitable for giving similar kinds of **particles**. However, it is unclear whether the mechanism of **particle** formation is the same as in ethanol/water mix

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(FILE 'HOME' ENTERED AT 17:33:40 ON 19 MAY 2005)

FILE 'CAPLUS' ENTERED AT 17:33:51 ON 19 MAY 2005

FILE 'CAPLUS' ENTERED AT 17:35:26 ON 19 MAY 2005

L1        25 SEA ABB=ON PLU=ON HYDROGEL (5A) (FRAGMENT OR FRAGMENTED OR  
WATER FREE OR AQUEOUS FREE)  
L2        0 SEA ABB=ON PLU=ON HYDROGEL (5A) (FRAGMENT OR FRAGMENTED) AND  
(WATER FREE OR AQUEOUS FREE)  
L3        2 SEA ABB=ON PLU=ON HYDROGEL (5A) (WATER FREE OR AQUEOUS  
FREE)  
D L3 IBIB KWIC 1-  
L4        2 SEA ABB=ON PLU=ON HYDROGEL (5A) (FRAGMENT OR FRAGMENTED) AND  
(SYRINGE OR PISTON OR EXTRUD?)  
L5        23 SEA ABB=ON PLU=ON HYDROGEL (5A) (FRAGMENT OR FRAGMENTED)  
L6        7 SEA ABB=ON PLU=ON HYDROGEL (5A) (FRAGMENT OR FRAGMENTED) (P)  
(GELATIN OR COLLAGEN OR POLYSACCHARIDE OR POLYMER)  
L7        4 SEA ABB=ON PLU=ON HYDROGEL (5A) (FRAGMENT OR FRAGMENTED) (P)  
(GELATIN OR COLLAGEN OR POLYSACCHARIDE)  
D L7 IBIB KWIC 1-Y  
D L7 IBIB KWIC 1-

FILE 'CAPLUS, MEDLINE, BIOSIS, LIFESCI' ENTERED AT 18:15:09 ON 19 MAY 2005

L8        2140 SEA ABB=ON PLU=ON HYDROGEL (P) (PARTICLE OR MICROPARTICLE OR  
FRAGMENT OR FRAGMENTED)  
L9        11 SEA ABB=ON PLU=ON HYDROGEL (P) (PARTICLE OR MICROPARTICLE OR  
FRAGMENT OR FRAGMENTED) (P) WATER (5A) (AMOUNT OR CONENET OR  
PERCENTAGE)  
L10      10 DUP REM L9 (1 DUPLICATE REMOVED)  
D L10 IBIB KWIC 1-